

Application No. 10/037372
Amendment dated December 14, 2005
Reply to Office Action of October 18, 2005

Docket No.: 013217.0179PTUS
(401045-A-01-US)

REMARKS

Claims 1 - 9 are pending in the application. In an Office Action mailed 18 October 2005, the Examiner rejected claim 3 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 3 has been amended to overcome this rejection. Claims 3, 5 - 7, and 9 have been amended to correct grammatical and typographical errors.

The Examiner also rejected claims 1 - 4 and 6 - 9 under 35 USC 103(a) as being unpatentable over Manning (US Patent No. 5,909,427) in view of Kasper (US Patent No. 6,941,391) and claim 5 under 35 USC 103(a) as being unpatentable over Manning in view of Kasper as applied to claim 3 above, and further in view of Chrabaszcz (US Patent No. 6,701,453). The Examiner noted:

(Re claim 1 and 3) Manning discloses "two call processing devices, wherein one of the two call processing devices is active and the other one of the two call processing devices is inactive" (Col 2 lines 61-64 "Background switch control module ... operates in the background and serves as a redundant module in the event that foreground switch control module ... fails or is taken out of service"). "and the active one of the two call processing devices receives a call request and generates a call routing instruction". (Re claim 3) "[sending] a copy of the plurality of call requests to the inactive call processing device", and (Re claim 1 and 3) "an interconnecting means for connecting the two call processing devices" (Col. 3 lines 1-4). "Each I/O module provides this information to the inputs of a foreground switch fabric ... of foreground switch control module and background switch control module" where the "active" and "inactive call processing devices" are interconnected through the I/O module and Col. 3 lines 7-9 "the communication information provided by each I/O module is properly routed or mapped to the appropriate destination", "at least two port network controllers interfacing with the two call processing devices" (Figure 1 where the I/O module, reference numbers 14-18, are the "port network controllers" and reference numbers 10 and 12 are the two call processing devices), and a "port network controller [processing] the call routing instruction" (Col. 3 lines 65-67 "cell flow processor ... uses TSSP ... to process the information" where the cell [sic] flow processor is part of the I/O module as shown in Figure 1 with reference 38.

Manning does not explicitly disclose "a means for assigning one of the at least two port network controllers as the master port network controller" and "a token bus interconnecting the two or more port network controllers, wherein at least one of the two or more port network controllers request a token and the one of the two or more port network controllers that receives the token is assigned as the master port network controller."

Kasper (US 6,941,391) discloses (Re claims 1 and 3) "a means for assigning one of the at least two port network controllers as the master port network

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controller" and "a token bus interconnecting the two or more port network controllers" (Col. 6 lines 18-19 "the controller ... negotiates to become a bus master" and Figure 1 where multiple "port network controllers", reference 40, are shown connected on a bus, reference 42), "wherein at least one of the two or more port network controllers request a token and the one of the two or more port network controllers that receives the token is the master port network controller" (Col. 7 lines 62-66 "The host only gives the controller ... ownership of descriptors ... when it has one or more frames ready for transmission" where the descriptor is a "token" and as stated earlier, the controller negotiates for the "token" or descriptor).

Applicant has reviewed the cited Manning and Kasper Patents and the Examiner's clearly stated grounds of rejection, has amended claims 1, 3, 5 - 7, and 9, and presents the following remarks in support of patentability.

Applicant's redundant network call management system comprises interconnected duplicate call processing devices connected to a plurality of port network controllers, where the plurality of port network controllers are interconnected via a token bus. The active call processing device receives call requests and processes the call requests to generate call routing instructions that are sent to the master port network controller. When the interconnection between the duplicate call processing devices fails, both of the duplicate call processing devices transition to an active state and instruct one of the plurality of port network controllers to operate as master. When a port network controller receives an instruction to transition to a master state, the port network controller requests a token and the port network controller that receives the token transitions to master port network controller.

The cited Manning Patent discloses a redundant switch and method of operation which comprises a foreground and a background control module that are connected in the same manner to the same plurality of I/O controllers. The redundant switch has the ability to systematically and routinely check the operation of the background switch during actual operation. The background switch control module operates in the background and serves as a redundant module in the event that the foreground switch control module fails or is taken out of service. Manning recognizes the criticality that components of the background control module are operating correctly so that, in the event of a failure, the background control module may be relied upon for continued operation. However, the redundant switch system disclosed by Manning fails to provide a contingency for operating the digital switching system in the event the I/O serial link between the foreground and the background control modules fails.

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The cited Kasper Patent discloses a system and method for reducing transfer latencies in fencepost buffering that provides a cache between a host and a network controller having shared memory. The cache is divided into a dual cache having a top cache and a bottom cache. A first and second descriptor address location is fetched from shared memory. The two descriptors are discriminated from one another in that the first descriptor address location is a location of an active descriptor, and the second descriptor address location is a location of a reserve/lookahead descriptor. The active descriptor is copied to the top cache. A command is issued to DMA for transfer of the active descriptor. The second descriptor address location is then copied into the first descriptor address. The next descriptor address location from external memory is then fetched and placed in the second descriptor address location.

Neither of the cited references disclose Applicant's redundant network call management system which comprises interconnected duplicate call processing devices connected to a plurality of port network controllers, where the plurality of port network controllers are interconnected via a token bus. The active call processing device receives call requests and processes the call requests to generate call routing instructions that are sent to the master port network controller. When the interconnection between the duplicate call processing devices fails, both of the duplicate call processing devices transition to an active state and instruct one of the plurality of port network controllers to operate as master. When a port network controller receives an instruction to transition to a master state, the port network controller requests a token and the port network controller that receives the token transitions to master port network controller.

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Applicant has amended the independent claims to clearly present these differences. In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1848, under Order No. 013217.0179PTUS from which the undersigned is authorized to draw.

Respectfully submitted,
PATTON BOGGS LLP

Dated: 12/14/05

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